

CLAIMS

WHAT IS CLAIMED IS

1. A method for grinding a magnetic member, comprising:
5 a first step of grinding a magnetic member by grinding means having an edge including heat resistant resin and super hard abrasive grain while supplying grinding fluid to a grinding region; and
10 a second step of magnetically separating sludge from the grinding fluid drained from the grinding region.
2. The method according to Claim 1, further comprising
15 a third step of separating the sludge from the grinding fluid by sedimentation of the sludge.
3. The method according to Claim 1, wherein
20 the magnetic member includes a rare-earth alloy, the second step using magnetic separation means having a surface magnetic flux density not smaller than 0.25 T for separation of the sludge.
4. The method according to Claim 1, wherein the grinding fluid is primarily made of water.
- 25 5. The method according to Claim 1, wherein the grinding fluid after separation of the sludge is supplied to the grinding region for use in circulation.

6. A method for treating waste fluid, comprising a step of separating sludge containing a rare-earth alloy from waste fluid by using magnetic separation means having a surface magnetic flux density not smaller than 0.25 T.

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7. The method according to Claim 6, wherein the sludge is further separated from the waste fluid by sedimentation of the sludge.

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8. An apparatus for grinding a magnetic member, comprising:

grinding operation means for grinding a magnetic member by using grinding means having an edge including heat resistant resin and super hard abrasive grain while supplying grinding fluid to a grinding region; and

magnetic separation means for separating sludge from the grinding fluid drained from the grinding region.

9. The apparatus according to Claim 8, further comprising a tank disposed on a downstream side of the magnetic separation means, for reception of the grinding fluid.

10. The apparatus according to Claim 8, wherein the magnetic member includes a rare-earth alloy, the magnetic separation means having a surface magnetic flux density not smaller than 0.25 T.

11. The apparatus according to Claim 8, wherein the grinding

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fluid is primarily made of water.

12. The apparatus according to Claim 8, further comprising circulating means for supplying the grinding fluid after separation of the sludge to the grinding region for use in circulation.

13. An apparatus for treating waste fluid, comprising magnetic separation means having a surface magnetic flux density not smaller than 0.25 T for separating sludge containing a rare-earth alloy from waste fluid.

14. The apparatus according to Claim 13, further comprising a tank disposed on a downstream side of the magnetic separation means, for reception of the waste fluid.

15. A rare-earth magnet obtained by using a grinding method: the method comprising; a first step of grinding a magnetic member by grinding means having an edge including heat resistant resin and super hard abrasive grain while supplying grinding fluid to a grinding region, and a second step of magnetically separating sludge from the grinding fluid drained from the grinding region.